	Group I (N = 10)	Group II (24)
Sex	2 Female/8 Male	5 Female/19 Male
Age (years)	45.67 ± 13.97	51.83 ± 10.52
AAR Grade	1.5 ± 0.73	3.65 ± 0.75
Cardiac Index on MTX	3.36 ± 1.26	2.46 ± 0.67
1 Year Survival	100	100
5 Year Survival	83.3	83.3

One year and five years survival in the 332 patients who did not receive MTX was only 82.2%* and 66%*, respectively.

Conclusions: Long-term survival in those HT patients with hemodynamic compromise and high AAR grade who received MTX was excellent (Group II). The long-term survival in HT patients with lower AAR grade (Group I) was also excellent. MTX is an effective and safe agent in the management of AAR after HT. *p < 0.01

1016-58 Combination Therapy With Tacrolimus and Mycophenolate Mofetil in Heart Transplantation Prevents Rejection Completely

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Background: In a recent study conducted at our centre MMF was administered at a fixed dose of 2 g/day in combination with tacrolimus and corticosteroids in 15 heart transplantation patients. The results showed that the immunosuppressive efficacy of MMF strongly correlated with the blood concentration. Therefore, we conducted a second study in which the MMF dose was adjusted according to blood concentrations.

Methods: Thirty patients were enrolled. The mean donor and recipient ages were 39.6 ± 13.0 and 54.0 ± 9.0 years, respectively, the mean ischemia time was 180 ± 66 min. Intravenous tacrolimus was administered immediately post-transplantation for 24–48 hours followed by oral tacrolimus for a target blood concentration range of 13–15 ng/ml. MMF was administered at an initial dose of 2 g/d and adjusted for target concentrations of 2.5–4.0 μg/ml. The mean MMF dose was 3.1 ± 1.1 g/d (range: 0.5–6 g/d).

Results: Patient survival was 97%, one patient died of a pulmonary infection. All patients, except one, were free of acute rejection (0.03 AR/patient). This patient had been suffering from influenza with severe gastrointestinal distress and had a tacrolimus blood concentration of 5 ng/ml and an MMF blood concentration of 0.5 μg/ml at the time of biopsy (Grade 3A, ISHLT Grade). Steroids have been completely withdrawn from all patients who completed 6 months of the study. The mean observation period was 152 ± 60 d.

Conclusion: Our results suggest that combination therapy with tacrolimus, MMF, and steroids seems to prevent acute rejection completely when the MMF and tacrolimus doses were adjusted to within the target ranges. Thus - contrary to what has been recommended earlier - MMF dose adjustments according to the blood concentration seem to improve outcome significantly. This strategy also allows complete withdrawal of steroids.

1017 Tilt Table Testing: Defibrillation

Sunday, March 29, 1998, 5:00 p.m.–7:00 p.m.
Georgia World Congress Center, West Exhibit Hall Level
Presentation Hour: 5:00 p.m.–7:00 p.m.

1017-167 Can Adenosine Tilt Testing Replace Conventional Tilt Testing?

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Background: Adenosine (ADO) can trigger a vasodepressor response during tilt testing (TT). We compared ADO TT versus conventional (Conv) TT in 80 consecutive pts with pre-syncope and/or syncope (34 M/46 F, 53 ± 21 years) undergoing TT. No pt was on β-blockers.

Methods: Pts received ADO (12 mg) while upright and were observed for 5 min. All pts developed initial bradycardia and/or AV block followed by a reflex tachycardia. A positive response was defined by a symptomatic vasodepressor response following the reflex tachycardia. After returning to the supine position, all pts, regardless of the response to ADO, underwent Conv TT. Pts were tilted upright at 60° for 30 min; if negative, pts underwent a 15 min upright TT during isoproterenol (ISO) infusion (1–5 μg/min until the heart rate increased by 20% compared with baseline).

Results: The yield of ADO TT (16/80, 20%) was similar to Conv TT (17/80, 21%, p = NS). The yield increased to (27/80, 34%) when either a positive ADO TT or Conv TT was considered a positive test. Of the 10 pts with a negative ADO TT and a positive Conv TT, 7 (70%) required isoproterenol during Conv TT to produce a positive response.

Conclusions: (1) The overall yield of ADO TT is comparable to Conv TT. (2) Because it is simpler and less time consuming to perform than Conv TT, ADO TT should be performed initially in all pts undergoing TT. A positive ADO TT obviates the need for further Conv TT. (3) To maximize the yield of TT, pts with a negative ADO TT should undergo a TT with ISO for 15 minutes.

1017-168 Aortic Mechanics During Tilt-up Test: Insights Into the Mechanisms Involved in Neurocardiogenic Syncope

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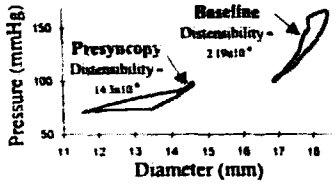
Background: The proposed mechanism of neurocardiogenic syncope is an intense vagotonic reaction leading to a rather sudden cardioinhibition, and/or vasodilation. The vasodilatory reaction is presumably due to loss of the arterial tone. However, the changes in ao (Ao) wall tone have not been investigated.

Methods: We evaluated the Ao wall mechanics during syncope induced by tilting in 5 pts presenting with syncope of unknown etiology. All 5 pts (age 35 ± 7 yrs) presented with at least one documented episode of syncope not associated with an identified arrhythmic or mechanical cardiac cause after a thorough electrophysiological evaluation. The tilt-up test was performed in the 80° upright position for a total of 60 min, or until presyncope due to hypotension or bradycardia occurred. Ao elastic properties were evaluated by pressure (P)-diameter (D) relation obtained from the simultaneous recordings of the Ao D and Ao P. Ao D was measured by an ultrasonic dimension intravascular catheter developed in our institution (Circulation 1995; 92: 2210–9). Ao P was recorded by a Millar micromanometer.

Results: In 3 pts the test was positive and in 2 negative. In the pts with positive test the P-D relation changed significantly indicating improved elastic properties during presyncope (fig.), whereas they remained unchanged in the pts with a negative test.



Conclusions: Ao elastic properties are significantly improved during neurocardiogenic syncope, indicating changes in Ao wall tone. This finding may provide a better understanding of the mechanisms involved in neurocardiogenic syncope.

1017-169 Baroreceptor Function During Head-up Tilt in Patients With Neurocardiogenic Syncope

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Background: The pathophysiology of neurocardiogenic syncope is not completely understood. This study was addressed to evaluate the possible role of an alterated baroreflex sensitivity (BRS).

Methods: We studied 13 subjects (30 ± 4 yrs) with >3/year syncopes, and a head-up tilt test (TUT) positive for neurocardiogenic syncope who were compared to 22 normal subjects (28 ± 10 yrs) (Control). In both groups ECG and systolic blood pressure (SBP) were recorded before TUT in supine position (BS), and throughout the TUT. The recordings obtained from BS and the first 5-minutes of the positive TUT were analysed. BRS was evaluated by using the sequence method which involves the identification of sequences ≥3 beats during which RR and SBP increased or decreased concurrently. The mean regression slope between RR and SBP was considered an index of BRS (msec/mmHg). Mean value of BRS and the percentage of beats involved in a sequence (Perc) were calculated.

Results:

	Patients	Control	p
BRS BS	14.7 ± 6†	17.8 ± 9†	ns
BRS TUT	6.9 ± 3	9.5 ± 3	ns
Perc BS	45 ± 12*	52 ± 18	ns
Perc TUT	39 ± 12	54 ± 9	0.05

* P < 0.05 BS vs TUT, † P < 0.01 BS vs TUT

Conclusion: During the early minutes of positive TUT, patients who will